

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named Inventor :	Hari Hara Kumar Venkatachalam	Appeal No. ---
Appln. No. :	10/672,316	
Filed :	September 26, 2003	Group Art Unit: 2629
For :	INTEGRATED SPECTACLES AND DISPLAY UNIT FOR COMPUTER AND VIDEO	Examiner:
Docket No.:	K28.12-0001	Duc Q. Dinh

## BRIEF FOR APPELLANT

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JANUARY 4, 2008

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Sir:

This is an appeal from an Office Action dated August 6, 2007 in which claims 1 and 4-22 were finally rejected.

### REAL PARTY IN INTEREST

Inventor Hari Hara Kumar Venkatachalam is the real party in interest.

### RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### STATUS OF THE CLAIMS

I. Total number of claims in the application.

Claims in the application are: 1-22

II. Status of all the claims.

- |    |                                     |            |
|----|-------------------------------------|------------|
| A. | Claims cancelled:                   | 2 and 3    |
| B. | Claims withdrawn but not cancelled: | ---        |
| C. | Claims pending:                     | 1 and 4-22 |
| D. | Claims allowed:                     | ---        |

E.	Claims rejected:	1 and 4-22
F.	Claims Objected to:	---
III.	Claims on appeal	

The claims on appeal are: 1 and 4-22

#### STATUS OF AMENDMENTS

Claim amendments in an Amendment After Final, which was filed on October 5, 2007, were entered by the Examiner as indicated in an Advisory Action that was mailed on October 22, 2007.

#### SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a pair of data-specs (10 of FIG. 1-1) that includes a pair of spectacles (12 of FIG. 1-1; page 3, lines 12-13 of the specification) adapted to be worn on the face of a person, the pair of spectacles having a first lens and a second lens (22 and 24 of FIG. 1-1; lines 19-20 of the specification). A projection unit (14 of FIG. 1, lines 12-13 of the specification) is coupled to the spectacles. The projection unit is adapted to display data received from an information source (52 of FIG. 2; page 5, lines 23-26 of the specification). The first lens and the second lens are independent of the projection unit, the projection unit is structurally and functionally application-independent, and the data that the projection unit is adapted to display includes data from a computer or video from a television set (page 3, lines 23-28 of the specification).

Independent claim 18, which is similar to independent claim 1, is directed to a method of forming a wearable device that displays data from an information source. The method includes providing a pair of spectacles adapted to be worn on the face of a person (102 of FIG. 4; page 8, lines 9-11), the pair of spectacles having a first lens and a second lens (22 and 24 of FIG. 1-1; page 3, lines 19-20 of the specification), and coupling a projection unit to the pair of spectacles, the projection unit is adapted to display data received from an information source (104 of FIG. 4; page 8, lines 12-15 of the specification). The first lens and the second lens are independent of the projection unit, the projection unit is structurally and functionally application-

independent, and the data that the projection unit is adapted to display includes data from a computer or video from a television set (page 3, lines 23-28 of the specification).

Separately argued dependent claim 21 includes controller (40 of FIG. 1-3) is adapted to provide a shutdown control signal to the receiver when motion detected by the motion sensor (38 of FIG. 1-3) is found to be above a predetermined threshold (page 5, lines 3-7 of the specification).

Separately argued dependent claim 22 includes controller (40 of FIG. 1-3) is adapted to provide a startup control signal to the receiver when motion detected by the motion sensor (38 of FIG. 1-3) is found to be below a predetermined threshold (page 5, lines 7-11 of the specification).

#### GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 5-6, 8-13, 15-16 and 18-20 under 35 U.S.C. §103(a) based on Yasukawa et al., U.S. Patent No. 6,320,559 in view of Schoolman, U.S. Patent No. 5,281,957 and further in view of Mann, U.S. Patent No. 6,307,526.

Claim 7 was rejected under 35 U.S.C. §103(a) based on Yasukawa in view of Schoolman, in view of Mann and further in view of Preston, U.S. Patent No. 6,094,283.

Claim 14 was rejected under 35 U.S.C. §103(a) based on Yasukawa and Schoolman, in view of Mann, and further in view of Hori et al., U.S. Patent No. 5,072,209.

Claim 17 under 35 U.S.C. §103(a) based on Yasukawa in view of Schoolman, in view of Mann, and further in view of Kato et al., U.S. Patent No. 5,497,170.

Claims 4 and 21-22 under 35 U.S.C. §103(a) based on Yasukawa in view of Schoolman and Mann and further in view of Barkan, U.S. Patent No. 5,656,804.

#### ARGUMENT

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim

limitations. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. §2143.

Under these criteria, the final Office Action fails to establish a *prima facie* case of obviousness of claims 1 and 4-22 based on the cited prior art.

I.       CLAIMS 1, 5-6, 8-13, 15-16 AND 18-20

Claims 1, 5-6, 8-13, 15-16 and 18-20 under 35 U.S.C. §103(a) based on Yasukawa et al., U.S. Patent No. 6,320,559 in view of Schoolman, U.S. Patent No. 5,281,957 and further in view of Mann, U.S. Patent No. 6,307,526.

Claim 1 includes “a pair of spectacles adapted to be worn on the face of a person, the pair of spectacles having a first lens and a second lens; and a projection unit.” (Emphasis Added.)

Appellant respectfully points out that “projection” is a phenomenon that is outward of something. (See attached definitions for projection in the Evidence Appendix.) Further, “unit” is defined as a single undivided whole. (See attached definitions for unit in the Evidence Appendix.) Thus, by definition, and in the context of the specification, a “Projection Unit” is a single device that projects/displays an image outside of itself (for example, on a wall (see page 3, line 26, of the specification)). None of the cited references, taken individually or in combination, show or suggest a “Projection Unit.”

In Yasukawa, Schoolman, and Mann, any device worn by the user includes a physical display component for the user to see an image that is within the physical display component, which is contrary to a “Projection Unit.”

In summary, none of the cited references, taken individually or in combination, teach or suggest “a pair of spectacles adapted to be worn on the face of a person, the pair of spectacles having a first lens and a second lens; and a projection unit,” as required by claim 1. Therefore, claim 1 is non-obvious and allowable over the cited art.

Independent claim 18 has elements similar to that of independent claim 1. Thus, for the same reasons as independent claim 1, Appellant submits that independent claim 18 is allowable as well. Moreover, Appellant respectfully submits that the dependent claims 5-6, 8-13, 15-16 and 19-20 are also allowable at least by virtue of their dependency, either directly or indirectly, from the allowable independent claims.

II.        CLAIM 7

Claim 7 was rejected under §103(a) based on Yasukawa in view of Schoolman, in view of Mann and further in view of Preston, U.S. Patent No. 6,094,283.

Claim 7 ultimately depends from claim 1, which, for reasons provided above, is believed to be allowable over Yasukawa, Schoolman and Mann. Preston does not overcome the deficiencies of Yasukawa, Schoolman and Mann and therefore claim 7 is believed to be allowable at least by virtue of its dependency from allowable claim 1.

III.      CLAIM 14

Claim 14 was rejected under §103(a) based on Yasukawa and Schoolman, in view of Mann, and further in view of Hori et al., U.S. Patent No. 5,072,209.

Claim 14 ultimately depends from claim 1, which, for reasons provided above, is believed to be allowable over Yasukawa, Schoolman and Mann. Hori does not overcome the deficiencies of Yasukawa, Schoolman and Mann and therefore claim 14 is believed to be allowable at least by virtue of its dependency from allowable claim 1.

IV.       CLAIM 17

Claim 17 was under §103(a) based on Yasukawa in view of Schoolman, in view of Mann, and further in view of Kato et al., U.S. Patent No. 5,497,170.

Claim 17 ultimately depends from claim 1, which, for reasons provided above, is believed to be allowable over Yasukawa, Schoolman and Mann. Kato does not overcome the deficiencies of Yasukawa, Schoolman and Mann and therefore claim 17 is believed to be allowable at least by virtue of its dependency from allowable claim 1.

V.        CLAIM 4

Claims 4 was rejected under §103(a) based on Yasukawa in view of Schoolman and Mann and further in view of Barkan, U.S. Patent No. 5,656,804.

Claim 4 depends from claim 1, which, for reasons provided above, is believed to be allowable over Yasukawa, Schoolman and Mann. Barkan does not overcome the deficiencies of Yasukawa, Schoolman and Mann and therefore claim 4 is believed to be allowable at least by virtue of its dependency from allowable claim 1.

VI. CLAIMS 21 and 22

Claims 21-22 were rejected under §103(a) based on Yasukawa in view of Schoolman and Mann and further in view of Barkan, U.S. Patent No. 5,656,804.

Claim 21 includes “the controller is adapted to provide a shutdown control signal to the receiver when motion detected by the motion sensor is found to be above a predetermined threshold,” and claim 22 includes “the controller is adapted to provide a startup control signal to the receiver when motion detected by the motion sensor is found to be below a predetermined threshold.”

The Office Action suggests that Barkan (column 11, lines 20-35) shows the above elements of claims 21 and 22. Appellant disagrees for the following reasons.

The cited language of Barkan (column 11, lines 20-35) describes specific components of Barkan’s automatic activation mechanism. However, the immediately preceding section of Barkan (column 11, lines 10-20) describes the essence of the activation mechanism, which is a mechanism for automatically turning “off” a terminal when the terminal is stationary, and automatically turning the terminal “on.” when it is moved. Column 11, lines 10-20 of Barkan are included below.

Referring now to FIG. 5C, a technique for turning the terminal, or selected components within the terminal, on and off is disclosed. The technique can be implemented by employing a motion or acceleration detecting mechanism in the terminal. Thus, a terminal can be designed such that whenever the terminal is laid down on, for example, a counter or table top, the terminal automatically turns itself “off”, as previously described, and when the unit is subsequently picked up, motion is detected and used to activate or automatically turn “on”, i.e. activate, the terminal.

The above language of Barkan is contrary to the requirements of claim 21, and claim 22. Thus, claims 21 and 22 are believed to be allowable.

CONCLUSION

For the reasons discussed above, Appellant respectfully submits that claims 1 and 4-22 are neither taught nor suggested by the references cited by the Examiner. Thus, Appellant

respectfully requests that the Board reverse the Examiner and find all pending claims allowable.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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AGR:tkj

Claims Appendix

1. A pair of data-specs comprising:

a pair of spectacles adapted to be worn on the face of a person, the pair of spectacles having a first lens and a second lens; and

a projection unit coupled to the spectacles, the projection unit adapted to display data received from an information source,

wherein the first lens and the second lens are independent of the projection unit, and

wherein the projection unit is structurally and functionally application-independent, and

wherein the data that the projection unit is adapted to display includes data from a computer or video from a television set.

2-3. (Cancelled).

4. The data-specs of claim 1 further comprising a motion sensor and a controller, the controller is adapted to receive an input from the motion sensor and to responsively disable or enable a receiver of the projection unit.

5. The data-specs of claim 1 wherein the projection unit is capable of wired communication with the information source.

6. The data-specs of claim 1 wherein the projection unit is capable of wireless communication with the information source.

7. The data-specs of claim 1 wherein an aspect ratio of the data displayed by the projection unit is 4:3.

8. The data-specs of claim 1 wherein the projection unit is adapted to display data, received from

the information source, on a virtual screen.

9. The data-specs of claim 1 wherein a size of the virtual screen is a function of a focal length of a line of the projection unit.

10. The data-specs of claim 8 wherein a size of the virtual screen is a function of a size of an image-forming display panel of the projection unit.

11. The data-specs of claim 1 wherein the projection unit is configured to possess a resolution of at least 640 x 480 pixels.

12. The data-specs of claim 1 wherein the projection unit is battery powered.

13. The data-specs of claim 1 wherein the projection unit is configured to receive power from the information source.

14. The data-specs of claim 1 wherein the projection unit is solar powered.

15. The data-specs of claim 1 wherein the projection unit is adapted to receive data from a transmitter that is integral with the information source.

16. The data-specs of claim 1 wherein the projection unit is adapted to receive data from a transmitter that is separate from the information source.

17. The data-specs of claim 1 further comprising a heat deflector.

18. A method of forming a wearable device that displays data from an information source, the method comprising:

- providing a pair of spectacles adapted to be worn on the face of a person, the pair of spectacles having a first lens and a second lens; and coupling a projection unit to the pair of spectacles, the projection unit adapted to display data received from an information source, wherein the first lens and the second lens are independent of the projection unit, and wherein the projection unit is structurally and functionally application-independent, and wherein the data that the projection unit is adapted to display includes data from a computer or video from a television set.
19. The method of claim 18 wherein the projection unit is capable of wired communication with the information source.
20. The method of claim 18 wherein the projection unit is capable of wireless communication with the information source.
21. The data-specs of claim 4 wherein the controller is adapted to provide a shutdown control signal to the receiver when motion detected by the motion sensor is found to be above a predetermined threshold.
22. The data-specs of claim 4 wherein the controller is adapted to provide a startup control signal to the receiver when motion detected by the motion sensor is found to be below a predetermined threshold.

## Evidence Appendix

The following definitions were presented in an Amendment After Final that was filed on October 5, 2007.

A screenshot of a Google search results page. The search query "define projection" is entered in the search bar. The results are listed under the heading "Definitions of projection on the Web". The first result is a list of bullet points defining projection across various fields:

- a prediction made by extrapolating from past observations
- the projection of an image from a film onto a screen
- project, a clerical undertaking
- any structure that branches out from a central support
- any solid convex shape that juts out from something
- (psychiatry) the act of projecting into the world your own traits and emotions are attributed to someone else
- the act of projecting one's own sound or penetrating quality: "our speakers have been designed to have superior sound and projection"; "a prime ingredient of public speaking is projection of the voice"
- the representation of a figure or solid on a plane as it would look from a particular direction
- projection: the act of projecting out from something
- expulsion: the act of expelling or projecting or ejecting

Below this, another bullet point discusses alchemy:

- Projection was the ultimate goal of Western alchemy. Once a philosopher's stone (or powder of projection) had been created, one would use the process of Projection to transmute a "lesser" substance into a "higher" form, often Lead into Gold

Further down, there are links to mathematical definitions of projection:

- In mathematics, a projection is any one of several different types of functions, mappings, operations, or transformations, for example, the following:
  - \* In set theory, an operation (typified by the  $j$ th projection map, written  $\text{proj}_j$ ) that takes an element  $x = (x_1, \dots, x_k)$ .

Finally, a link to linear algebra is provided:

- In linear algebra and functional analysis, a projection is a linear transformation  $P$  from a vector space to itself such that  $P^2 = P$ . Projections map the whole vector space to a subspace and leave the points in that subspace unchanged.

The browser interface shows tabs for "Downloads" and "Links", and a "Done" button at the bottom.

define: unit - Google Search - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Back Forward Stop Refresh https://www.google.ca/search?q=define:unit&rlz=1C1GCEU\_enCA413CA413GoogSearch

Normal mode

Web Images Video News Maps Gmail more ▾

Google

dolno unit

Search Advanced

View and manage your web history

Web

Related phrases: central processing unit, central thermal unit, unit trust, astronomical unit, drilling unit, business unit, unit price, business unit, european currency unit, stock market unit

Definitions of unit on the Web:

- unit of measurement: any division of quantity accepted as a standard of measurement or exchange, "the dollar is the United States unit of currency".
- an individual or group or structure or other entity regarded as a structural or functional constituent of a whole, "he reduced the number of units and installations"; "the word is a basic linguistic unit".
- an organization regarded as part of a larger social group, "the coach said the offensive unit did a good job"; "after the battle the soldier had trouble rejoining his unit".
- a single undivided whole, "an idea is not a unit that can be moved from one brain to another".
- a product consisting of several items joined together, "units of nucleic acids".
- whole: an assembly of parts that is regarded as a single entity, "how big is that part compared to the whole?"; "the team is a unit".

[https://en.wikipedia.org/w/index.php?title=Unit\\_\(disambiguation\)&oldid=90000000](https://en.wikipedia.org/w/index.php?title=Unit_(disambiguation)&oldid=90000000)

- Unit is the second full-length album by Reggaetón, released in November, 1997. Its style is a mixture of 1980's style synthesized pop music and alternative rock, with some hip-hop influences.

[https://en.wikipedia.org/w/index.php?title=Unit\\_\(Reggaet%C3%B3n\\_album\)&oldid=90000000](https://en.wikipedia.org/w/index.php?title=Unit_(Reggaet%C3%B3n_album)&oldid=90000000)

- In mathematics, a unit in a (unital) ring R is an invertible element of R, i.e. an element u such that there is a v in R with  $uv = vu = 1_R$  (long there).

[https://en.wikipedia.org/w/index.php?title=Unit\\_\(ring\\_theory\)&oldid=90000000](https://en.wikipedia.org/w/index.php?title=Unit_(ring_theory)&oldid=90000000)

- Measurement is the estimation of a physical quantity such as length, temperature, or time. Measurements find the ratio of some physical quantity to a standard quantity of the same type, thus a measurement of length is the ratio of a physical length to some standard length, such as a standard ...

<https://en.wikipedia.org/w/index.php?title=Measurement&oldid=90000000>

- A accepted quantity used as a standard of measurement. For example, the meter, liter and gram.

[https://en.wikipedia.org/w/index.php?title=Unit\\_\(quantity\)&oldid=90000000](https://en.wikipedia.org/w/index.php?title=Unit_(quantity)&oldid=90000000)

- The premises rented under one tenancy agreement, usually an apartment within a complex with a group of units (apartment buildings, condominiums, townhouse complexes, etc.)

[https://en.wikipedia.org/w/index.php?title=Unit\\_\(real\\_estate\)&oldid=90000000](https://en.wikipedia.org/w/index.php?title=Unit_(real_estate)&oldid=90000000)

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Date

Related Proceedings Appendix

There are no known related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.